

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

### **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,460	06/29/2000	Kent K. Leung	CISCP150	1014
22434	7590	09/23/2004	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 778 BERKELEY, CA 94704-0778			KIANERSI, MITRA	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/608,460

Applicant(s)

LEUNG, KENT K.

Examiner

mitra kianersi

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-23 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

### ***Detailed Action***

The request for reconsideration received on 05/24/2004 has been made of record in the file. Applicant's arguments with respect to claim 1-23 are moot in view of the new ground(s) of rejection.

Claims 1-23 remain pending.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Das et al. (US 2002/0026527) and further in view of Hsu et al. (US 6,674,734).

1. Regarding claims 1 and 18, Das et al. teach a Foreign Agent that supports Mobile IP, the Foreign Agent being on a foreign network and configured to enable a mobile node that supports mobile IP visiting the Foreign Agent (enable communication with the mobile node, abstract) to send IP packets including voice information via an IP address correspondent node sends packets to a roaming mobile node, it uses the mobile node's home IP address, [0023]), obtained from an H.323 gateway, the foreign agent comprising: a processor, a memory, the memory storing therein the following instructions: instructions for sending an agent advertisement, (FIG. 3A is a diagram depicting the message flows between the mobile node 246 and other entities in the system 200, in accordance with an embodiment of the present invention. While in a particular subnet, for example subnet 260, the subnet agent 244 sends out an advertisement 300. The mobile node receives the advertisement and replies with a

request 305, which may include a registration request as specified in Mobile IP and modified to include additional bits indicating the use of a DTA 242. The subnet agent replies 310 to the request 305, providing a global care-of-address (GCOA) (e.g., the address of the DTA 242) and a local care-of-address. Reply 310 may include a registration reply as specified in Mobile IP and modified to include a global care-of-address and a local care-of-address. [0057])

the agent advertisement identifying an H.323 gateway on the foreign network; instructions for receiving a packet from the mobile node, (The first agent may intercept communications received in the first network and addressed to the mobile node and forward the communications to the second agent. The second agent may then forward the communications to the mobile node. [0036])

the packet being addressed to the H.323 gateway on the foreign network and requesting an IP address associated with a destination;

instructions for forwarding a packet including the requested IP address to the mobile node; (The first agent may intercept communications received in the first network and addressed to the mobile node and forward the communications to the second agent.

The second agent may then forward the communications to the mobile node. [0036]) instructions for receiving an IP packet including voice information from the mobile node, the IP packet being addressed to the IP address. (For example, the home agent 212 may include a table associating the home address of each mobile node with a global address received from the mobile node. [0053])

Although Das et al. teaches all of the claimed elements except for the H.323 gateway, Das et al. is silent about the H.323 gateway. However, Hsu et al. have been cited for teaching a communication system and method for allowing endpoints to move between zones of a packet-switched network (abstract). Hsu et al. further teach that the H.323 Standard provides a foundation for audio, video, and data communications across IP networks. By complying with the H.323 Standard, multimedia products and applications from multiple vendors can interoperate, allowing users to communicate without concern for compatibility. The H.323 Standard is part of a larger series of communications standards that enable audio video conferencing across a range of networks.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to employ a H.323 gateway as thought in Hsu et al. with voice over IP optimization and mobile IP network technology in Das et al. to recognize that there exists a need for technique that allows endpoints implementing the H.323 standard to be able to roam or have mobility between different zones, networks or sub-networks of a packet-switched network. for the explicit reasons discussed herein above.

2. Regarding claim 3, Das-Hsu et al. disclose a method where in a Foreign Agent comprising: instructions for receiving the packet including the requested IP address from the H.323 gateway (the relay gatekeeper IP address indicates the IP address of the original gatekeeper 24 since it will serve primarily a relay function, and the TCP port number indicates the port number at the original gatekeeper 24 which received messages from the old local endpoint 20. Pg 7, lines 37-41, Hsu et al.).

3. Regarding claim 4, Das-Hsu et al. disclose a method where Foreign Agent comprising: instructions for determining whether the gateway has access to the requested IP address associated with the destination (Gatekeepers are the most important component of an H.323 standard enabled network. It acts as a central point for all calls or communication within a zone serviced by the gatekeeper and provides call communication control services to registered endpoints. The gatekeeper could be considered a virtual switch. The gatekeeper performs four important call or communication control functions. The first is address translation from, for example, aliases for terminals and gateways to transport addresses. The second is admission control where the gatekeeper authorizes network access based on call authorization, bandwidth, or some other criteria. The third is bandwidth control, which provides bandwidth management wherein the gatekeeper if necessary can refuse to make connections. The fourth is zone management where the gatekeeper provides each of the above noted functions for the terminals, MCU's, and gateways that have been registered in the zone serviced by the gatekeeper. Pg 1, lines 51-67, Hsu et al.);

instructions for obtaining the requested IP address from the gateway when the gateway does have access to the requested IP address associated with the destination (the second is admission control where the gatekeeper authorizes network access based on call authorization, bandwidth, or some other criteria. The third is bandwidth control, which provides bandwidth management wherein the gatekeeper if necessary can refuse to make connections. Pg 1, lines 51-67, Hsu et al.)

instructions for obtaining the requested IP address from a second gateway located at a home network of the mobile node when the H.323 gateway does not have access to the requested IP address associated with the destination (The third is bandwidth control which provides bandwidth management wherein the gatekeeper if necessary can refuse to make connections. Pg 1, lines 51-67, Hsu et al.).

4. Regarding claim 5, Das et al. teach a method where the instructions for obtaining the requested IP address from a second H.323 gateway located at a home network of the mobile node comprise: instructions for sending a request for the requested IP address to the Home Agent; and instructions for receiving the requested IP address from the Home Agent (Registration request 315, similar to request 305, may include a registration request as specified in Mobile IP and modified to include additional bits indicating the use of a DTA 242. The mobile node 246 may then send update 325 to the home agent 212 in network 210 or the correspondent node 222 in network 220. Update 325 may include a registration request as specified in Mobile IP or another global mobility protocol, and may request the home agent to create or modify the association in the home agent's table between the mobile node's home address and its global care-of-address. [0059]

5. Regarding claim 6, Das et al. teach a method where Foreign Agent comprising: instructions for sending the IP packet addressed to the IP address. (For example, the home agent 212 may include a table associating the home address of each mobile node with a global address received from the mobile node. [0053])

Art Unit: 2143

6. Regarding claim 7 and 12, Das et al. teach a method, wherein the IP address is associated with a PSTN gateway (such as the PSTN (Public Switched Telephone Network, [0004]

7. Regarding claim 8, Das et al. teach a method, wherein the Foreign Agent as comprising: instructions for sending a registration request to a Home Agent associated with the node; (The mobile node receives the advertisement and replies with a request 305, which may include a registration request as specified in Mobile IP and modified to include additional bits indicating the use of a DTA 242. [0057]) instructions for receiving a registration reply from the Home Agent associated with the node; and instructions for forwarding the registration reply to the node (Reply 310 may include a registration reply as specified in Mobile IP and modified to include a global care-of-address and a local care-of-address. [0057])

8. Regarding claim 9, Das et al. teach a method where the Foreign Agent as comprising: instructions for receiving an IP packet including voice information from the Home Agent, the IP packet being addressed to the node; (The mobile node 246 then may register with the identified DTA 242 (step 420) by sending a request 315 or 340 to the DTA. The DTA replies to the request 315 or 340 by sending a unique, globally reachable GCOA 320 or 345 to the mobile node. [0066]) and instructions for forwarding the IP packet to the node The home agent 212 then inserts into the destination header of packets destined to mobile node 246 the GCOA that it received from the mobile node 246 during step 430 of FIG. 4 (step 510). The home agent 212 then forwards the packet to the GCOA (step 520), [0069])

9. Regarding claim 10, Das et al. teach a method where the Foreign Agent as comprising: instructions for notifying a corresponding node having the IP address that the node is visiting the Foreign Agent. (The first mode of operation uses a foreign agent (FA) while a mobile node visits a foreign network, [0014]).



10. Regarding claim 11, Das et al. teach a method wherein the Foreign Agent as comprising: instructions for notifying a corresponding node having the IP address that a care-of address of the node is an address of the Foreign Agent. (This additional address is also referred to as a "care-of-address" and ensures that packets are forwarded using conventional IP routing to the current location of a mobile node in a foreign network. A foreign network may be a network other than a mobile node's permanent home network. [0012])

11. Regarding claim 13, Das et al. teach a method, wherein the PSTN gateway supports Mobile IP and wherein notifying the corresponding node having the IP address that the care-of address of the mobile node is an address of the Foreign Agent comprises sending a mobile IP packet including the care-of address to the PSTN gateway (When a mobile node enters a Cellular IP network, it communicates the address of a local gateway to its home agent as the care-of-address. [0024])

12. Regarding claim 14, et al. teach a method where Foreign Agent comprising: instructions for notifying a corresponding node having the IP address that the node is no longer visiting the Foreign Agent. (The first mode of operation uses a foreign agent (FA) while a mobile node visits a foreign network, [0014]).

13. Regarding independent claim 15, teach a method where a node visiting a Foreign Agent on a foreign network and being capable of sending IP packets via an IP address obtained from a gateway, the node comprising: a processor and a memory storing therein the following instructions: instructions for receiving an agent advertisement, the agent advertisement identifying an gateway on the foreign network; instructions for sending a packet from the node, the packet being addressed to the gateway and requesting an IP address associated with a destination; instructions for receiving a packet including the requested IP address; and instructions for sending an IP packet from the node, the IP packet being addressed to the IP address . (enable communication with the mobile node, abstract) to send IP packets including voice information via an IP address correspondent node sends packets to a roaming mobile node, it uses the mobile node's home IP address, [0023]), (FIG. 3A is a diagram depicting the message flows between the mobile node 246 and other entities in the

system 200, in accordance with an embodiment of the present invention. While in a particular subnet, for example subnet 260, the subnet agent 244 sends out an advertisement 300. The mobile node receives the advertisement and replies with a request 305, which may include a registration request as specified in Mobile IP and modified to include additional bits indicating the use of a DTA 242. The subnet agent replies 310 to the request 305, providing a global care-of-address (GCOA) (e.g., the address of the DTA 242) and a local care-of-address. Reply 310 may include a registration reply as specified in Mobile IP and modified to include a global care-of-address and a local care-of-address. [0057]), (The first agent may intercept communications received in the first network and addressed to the mobile node and forward the communications to the second agent. The second agent may then forward the communications to the mobile node. [0036]), (For example, the home agent 212 may include a table associating the home address of each mobile node with a global address received from the mobile node. [0053])

Although Das et al. teaches all of the claimed elements except for the H.323 gateway, Das et al. is silent about the H.323 gateway. However, Hsu et al. have been cited for teaching a communication system and method for allowing endpoints to move between zones of a packet-switched network (abstract). Hsu et al. further teach that the H.323 Standard provides a foundation for audio, video, and data communications across IP networks. By complying with the H.323 Standard, multimedia products and applications from multiple vendors can interoperate, allowing users to communicate without concern for compatibility. The H.323 Standard is part of a larger series of communications standards that enable audio video conferencing across a range of networks.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to employ a H.323 gateway as thought in Hsu et al. with voice over IP optimization and mobile IP network technology in Das et al. to recognize that there exists a need for technique that allows endpoints implementing the H.323 standard to be able to roam or have mobility between different zones, networks or sub-networks of a packet-switched network for the explicit reasons discussed herein above.

14. Regarding claim 17, Hsu et al. disclose a method comprising instructions for saving gateway information associated with the gateway (stores such information and then sends a relay setup message including the relay TCP port number to the original gatekeeper. Col 10, lines 1-3).

15. Regarding independent claims 19-23, Das et al. teach a system where a node visiting a Foreign Agent on a foreign network and being capable of sending IP packets (Pg 6, lines 5-8) via an IP address obtained from a gateway, the node comprising: means for receiving an agent advertisement, the agent advertisement identifying a gateway on the foreign network; means for sending a packet from the node, the packet being addressed to the gateway and requesting an IP address associated with a destination; means for receiving a packet including the requested IP address; and means for sending an IP packet from the node, the packet being addressed to the IP address ((enable communication with the mobile node, abstract) to send IP packets including voice information via an IP address correspondent node sends packets to a roaming mobile node, it uses the mobile node's home IP address, [0023]), (FIG. 3A is a diagram depicting the message flows between the mobile node 246 and other entities in the system 200, in accordance with an embodiment of the present invention. While in a particular subnet, for example subnet 260, the subnet agent 244 sends out an advertisement 300. The mobile node receives the advertisement and replies with a request 305, which may include a registration request as specified in Mobile IP and modified to include additional bits indicating the use of a DTA 242. The subnet agent replies 310 to the request 305, providing a global care-of-address (GCOA) (e.g., the address of the DTA 242) and a local care-of-address. Reply 310 may include a registration reply as specified in Mobile IP and modified to include a global care-of-address and a local care-of-address. [0057]), (The first agent may intercept communications received in the first network and addressed to the mobile node and forward the communications to the second agent. The second agent may then forward the communications to the mobile node. [0036]), (For example, the home agent 212 may include a table associating the home address of each mobile node with a global address received from the mobile node. [0053])

Art Unit: 2143

Although Das et al. teaches all of the claimed elements except for the H.323 gateway, Das et al. is silent about the H.323 gateway. However, Hsu et al. have been cited for teaching a communication system and method for allowing endpoints to move between zones of a packet-switched network (abstract). Hsu et al. further teach that the H.323 Standard provides a foundation for audio, video, and data communications across IP networks. By complying with the H.323 Standard, multimedia products and applications from multiple vendors can interoperate, allowing users to communicate without concern for compatibility. The H.323 Standard is part of a larger series of communications standards that enable audio video conferencing across a range of networks. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to employ a H.323 gateway as thought in Hsu et al. with voice over IP optimization and mobile IP network technology in Das et al. to recognize that there exists a need for technique that allows endpoints implementing the H.323 standard to be able to roam or have mobility between different zones, networks or sub-networks of a packet-switched network.; for the explicit reasons discussed herein above.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (703) 305-4650. The examiner can normally be reached on 7:00AM-4:00PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-9923.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mitra Kianersi  
Sept/09/2004

  
ZARNI MAUNG  
PRIMARY EXAMINER